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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,608	08/10/2001	Armin Heinz Hayn	602-1535	8212

7590 02/26/2003

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EXAMINER

NGUYEN, LAM S

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 02/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/927,608

Applicant(s)

HAYN, ARMIN HEINZ

Examiner

LAM S NGUYEN

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 12, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 6-11, 13 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

New corrected drawings are required in this application because FIGs. 1-4 are informal. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-5, 12, 15, 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Tamura et al. (US 4442355).

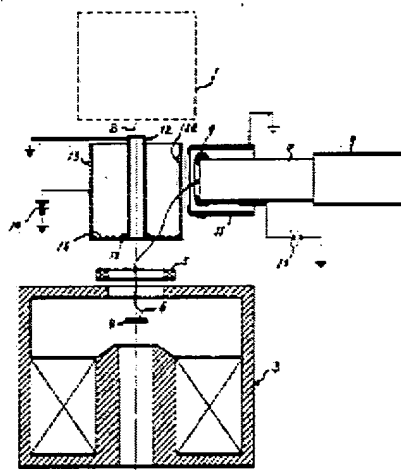
Tamura et al. disclose an apparatus for detecting charged particles (FIG. 2, elements 7-11), the apparatus comprising a chamber (FIG. 2, element 11) for receiving said particles (FIG. 2, element 6) and being such that, in use, at least a partial vacuum is maintained in the chamber; an impact responsive sensor (column 1, line 39-42) for detecting particles incident thereon, at least the part of the sensor on which the particles are incident being situated in the chamber; accelerating electrode for providing, in the chamber, an electric field for accelerating charged particles (FIG. 2, element 10) therein towards the sensor and an electrically conductive barrier sealing the chamber in such a way as to prevent the passage of gas into the chamber, to allow

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said at least partial vacuum to be maintained, the barrier being sufficiently thin to enable the charged particles to be detected to travel therethrough, and being electrically isolated from the accelerating electrode so as to be capable of being maintained at a different potential from the latter (FIG. 2, element 11).

Referring to claim 2: in which the accelerating electrode (FIG. 2, element 9) is situated on or adjacent the sensor, and a connector for connecting said member to an accelerating voltage.

Referring to claims 3-5: in which the sensor comprises a scintillator (an Everhard-Thornley detector) (column 1, line 39-42) incorporated said accelerating electrode (FIG. 2, element 9) for emitting light in response to the impact of a charged particle therewith.



Referring to claim 15: a scanning electron microscope having a sample chamber (FIG. 2, element 3) for holding a sample (FIG. 2, element 4) to be imaged in a gaseous environment, generating means for generating a scanning beam of electrons and directing said beam onto a sample in said sample chamber (FIG. 2, element 1), wherein said chamber also contains detecting means for detecting secondary electrons emitted by the sample (FIG. 2, element 7-8).

Referring to claim 12: in which the apparatus includes voltage source for applying a first accelerating voltage to said electrically conductive member (column 1, line 45-48) and a second accelerating voltage of the same polarity as, but lower than, the first accelerating voltage, to the barrier (FIG. 2, element 11 is connected to ground).

Referring to claim 16: in which the electrically conductive member and barrier are connected to a voltage source for applying a voltage of + 10 kV (column 1, line 45-48) to the member and of 0 to + 1 kV to the barrier (FIG. 2, element 11 is connected to ground).

Allowable Subject Matter

2. Claims 6-11, 13, 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Referring to claim 6: The most pertinent art Tamura et al. (US 4442355) fail to disclose in which the barrier conveniently comprises a membrane of metallic foil. Therefore, the claimed invention is not disclosed by the cited prior art.

Referring to claims 10, 13: The most pertinent art Tamura et al. (US 4442355) fail to disclose in which the apparatus further includes an electrically conductive cage mounted in front of, but electrically insulated from, the barrier means, the cage being connectable to an accelerating voltage for drawing particles towards the barrier means, the cage being so constructed as to allow the passage of particles therethrough. Therefore, the claimed invention is not disclosed by the cited prior art.

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Referring to claim 11: in which the apparatus includes a pump connected to, and operable to evacuate, the chamber. Therefore, the claimed invention is not disclosed by the cited prior art.

Referring to claims 7-9, 14: Allowable since their dependence on the allowable claims 6, 10.

Conclusion

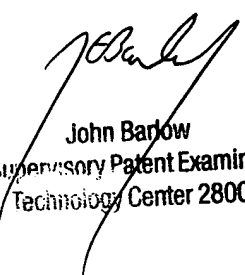
Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAM S NGUYEN whose telephone number is (703)305-3342. The examiner can normally be reached on 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BARLOW can be reached on (703)308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3431 for regular communications and (703)305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

LN

February 21, 2003


John Barlow
Supervisory Patent Examiner
Technology Center 2800